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ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE PROGRAMS
NEW PEST DETECTION AND SURVEY STAFF

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Service serves as a clearing house and does not assume responsibility for accuracy of the material.

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COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

GREENBUG numbers very severe in parts of Oklahoma, Kansas, and Nebraska. (p. 614).

POTATO LEAFHOPPER continued heavy in Nebraska, Iowa, Illinois, Indiana, and Ohio. (p. 615).

VARIEGATED CUTWORM outbreak on potatoes in Ohio. Heavy in Wisconsin. (p. 621).

MOSQUITOES heavy in Texas, Arkansas, and Wisconsin. (pp. 624-625).

GRASSHOPPERS very heavy in Arizona, Washington, and Montana. (p. 626).

Detection

New State records include ALFALFA BLOTCH LEAFMINER in Maryland (p. 618), CEREAL LEAF BEETLE in Vermont (p. 626), a PTEROMALID WASP in Wisconsin (p. 625), SMALLER EUROPEAN ELM BARK BEETLE in North Dakota (p. 623), SPOTTED ALFALFA APHID in Hawaii (p. 628), and a THRIPS in Utah (p. 617).

For new county records, see page 628.

Reports in this issue are for week ending July 18 unless otherwise indicated.

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SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ARMYWORM (Pseudaletia unipuncta) - IOWA - Larvae damaged corn in Fayette, Polk, and Winneshiek Counties. Spot treatments applied. Many dead larvae in Winneshiek County field. (Iowa Ins. Sur.). MINNESOTA - Very light in many grain fields and occasionally in weedy cornfields. Over 5 per square foot in some northwest counties. Averages ranged 2-3 (highs of 6) per square foot in grain fields in Norman and Mahnomen Counties. Larvae in early instars and could become fully grown when grain is cut and swathed. (Minn. Pest Rpt.). WISCONSIN - Scattered reports of corn damage continued in southern areas. Damaged 5 percent of plants in 6 Calumet County fields. Damage moderate in spots in cornfield near Poynette, Columbia County. Field formerly in sod with heavy quackgrass infestation. Grower planned to spot treat field. Controls needed in many late-maturing canning peas throughout southern and eastern areas. Counts of 4-6 larvae per square foot common. Heaviest in Columbia, Dane, and Dodge Counties. Up to 2 young larvae in late-planted oatfield in Sheboygan County while headed oatfield in Iowa County contained few cocoons of Apanteles sp. (a braconid wasp). (Wis. Ins. Sur.). OHIO - Larvae damaged 40 percent of double-cropped, no-till corn in alfalfa sod in Perry County. (Lewis). WEST VIRGINIA - Heavily damaged 7-8 acres of corn in Monongalia County by July 8. (Butler). NEW YORK - Larvae 6-10 per plant on no-till corn in Wyoming County week ending July 11. (Muka, Fendick).

ASTER LEAFHOPPER (Macrosteles fascifrons) - WISCONSIN - Aster yellows disease up to 40 percent in early lettuce plantings. Ranged 2-3 per sweep, over half were late instars, in late-planted grain field in Columbia County. Disease symptoms in more weeds around lettuce and carrot fields. Infection level still on increase in leafhoppers. (Wis. Ins. Sur.).

BEET LEAFHOPPER (Circulifer tenellus) - COLORADO - Ranged 5-75 per 100 sweeps of tomatoes in Otero and Pueblo Counties. (Schweissing).

CORN EARWORM (Heliothis zea) - MARYLAND - Trap catches still very light. Rains slowed emergence statewide. Heaviest ear damage ranged 3-8 percent in 300 acres of field corn in Queen Annes and Talbot Counties. (U. Md., Ent. Dept.). OKLAHOMA - Moderate on corn and grain sorghum in Kay County. Light on sorghum in Garvin County and on peanuts in Marshall County. (Okla. Coop. Sur.). NEBRASKA - Infested whorls of up to 10 percent of corn in Fillmore, York, and Hall Counties. (Raun). IDAHO - First damage to newly emerged corn silks July 14 at Parma, Canyon County. First larva in corn ear that silked June 23 compared with June 19 in 1974 and May 30 in 1973. (Scott).

CORN LEAF APHID (Rhopalosiphum maidis) - MISSISSIPPI - Adults and nymphs 200-300 per plant; infested whorls on 5 percent of 18-inch sorghum in 75-acre field week ending July 11. (Robinson). TEXAS - Declined on sorghum in Rolling Plains. Medium in Tom Green County. Heavy in Nolan County. (Boring, McWhorter). OKLAHOMA - Moderate to heavy on sorghum in Caddo and Payne Counties. (Okla. Coop. Sur.). KANSAS - Heavy on sorghum in many southwest area fields, some treatment applied in Haskell County. Decreased rapidly in northeast district. (Bell). NEBRASKA - Heavy on sorghum week ending July 11. Up to 1,000 per plant in York and Merrick Counties. Ranged 70-80

corn leaf aphids per whorl on 60-inch corn in York, Fillmore, Hall, and Merrick Counties. Averaged 125 per plant in 227 Clay County fields; field averages ranged 0-1,800 per plant. Brown leaves on 10 percent of plants in heavily infested field. Ranged 200-1,000+ per plant in individual fields in Clay, Thayer, and York Counties; fields uniformly infested. Currently much reduced on milo and corn in central area. Decreased on milo and increased on emerging corn tassels in Otoe and Cass Counties. (Raun et al.).

WISCONSIN - Colonies of up to 400 corn leaf aphids per plant on small percentage of plants; heavier infestations in Central Sands area where up to 25 percent of plants had colonies of 200-400 aphids per plant. Some spraying on Waukesha County corn. (Wis. Ins. Sur.). OHIO - Light on corn in Morrow, Knox, and Coshocton Counties. Colonies on 2-20 percent of plants. (Lewis).

GREENBUG (Schizaphis graminum) - COLORADO - Light on southeast area sorghum. (Schweissing). NEW MEXICO - Persisted in southwest area. Treatments poor on sorghum near Rodeo and Virden, Hidalgo County. (N.M. Coop. Rpt.).

TEXAS - Greenbug reduced below economic damage levels by beneficial insects in Hill and Ellis Counties. Increased on sorghum at San Angelo, medium in Tom Green County. Light in Nolan County. (Buxkemper et al.). OKLAHOMA - Up to 1,500 per plant in scattered sorghum fields in Texas County. Light in Payne, Noble, Pawnee, and Caddo Counties. (Okla. Coop. Sur.). KANSAS - Heavy on northeast district sorghum, especially on late sorghum where alates heavy. Treatments applied in Brown and Nemaha Counties; controls poor in some cases in Brown County, probably due to rapid reinfestation by alates after treatment. Averaged 500 (up to 1,000) per sorghum plant 5-9 inches tall in Brown County. Up to 1,275 per plant in Nemaha County. Becoming heavy (heavy flights especially in late sorghum) in Osage, Shawnee, and Douglas Counties; much lighter in Coffey County. Damaged lower leaves in Ellis County. Lysiphlebus testaceipes (a braconid wasp) reduced minor greenbug population in Kiowa County field. Parasites usually light in northeast and east-central districts. (Bell).

NEBRASKA - Greenbugs averaged 80 per plant on 40-inch milo and ranged 2-5 on 20-inch milo in York and Merrick Counties week ending July 11. Averaged 500 per plant in some Nemaha County fields; damage increased rapidly on lower leaves. Averaged 25 per plant on 5-10 percent of plants in 3 fields in Knox and Stanton Counties. Field averages ranged 0-345 (averaged 27) per plant in 62 Clay County fields. Averaged 250 per plant in Thayer County field; Hippodamia convergens (convergent lady beetle) increasing. (Raun et al.). Currently little change in numbers in York, Hall, and Merrick Counties. Small colonies established on lower leaves of corn in Fillmore County. Ranged 150-1,549 (averaged 789.5) per plant in 4 fields in Cass and Otoe Counties; built up heavily in some fields. Averaged 99 per milo plant in 35 Clay County fields. (Gary). SOUTH DAKOTA - Remained light on sorghum statewide. (Walgenbach).

MISSOURI - Greenbugs light to moderate on southwest area corn. Small colonies on 16-100 percent of plants. Parasites and predators still heavy. (Munson). ARKANSAS - Very light on grain sorghum on farm near Fayetteville, Washington County. (Boyer).

POTATO LEAFHOPPER (Empoasca fabae) - OKLAHOMA - Moderate: some leaf burn and yellowing of Okfuskee County soybeans. (Okla. Coop. Sur.). NEBRASKA - Severely damaged first-year alfalfa in east and northeast districts. Averaged 12.5 adults and nymphs per plant in 2 first-year fields in Antelope County. (Loeppke et al.). IOWA - Damaged alfalfa in more than 50 counties. Stunted and yellowed new alfalfa seedings in oats. Yellowed established stands. Treated statewide. (Iowa Ins. Sur.). WISCONSIN - Injury appeared at dry sites in southwestern counties. Up to 25 per sweep in some Grant County fields; abundance of nymphs indicated very successful reproduction. Trace on potatoes in Iowa, Waushara, and Portage Counties. Much heavier in potato field in Marathon County; chemical controls poor. Under 2 per sweep in beanfields in Dunn, Chippewa, and Eau Claire Counties and in central district. Nymphs still found on some Waushara County beans. (Wis. Ins. Sur.). ILLINOIS - Heavy on second and third-growth alfalfa statewide. (Ill. Ins. Rpt.). INDIANA - Remained problem on alfalfa statewide. (Edwards). OHIO - Damage by heavy populations on alfalfa still common statewide although treatments applied. Adults 1.2-2.4 (averaged 1.6) in untreated, established fields in central and east-central counties. Damage moderate in most established fields and severe on alfalfa seedings in wheat stubble. Adults 0.7 per sweep in 2 fields treated after second cutting. (Lewis). Moderate to heavy on apples last 14 days. Ranged 2-5 per leaf on untreated Red Delicious apple trees. (Hall). MARYLAND - Adult and nymphal counts reduced by heavy rains. Expected to increase rapidly next 10 days statewide. (U. Md., Ent. Dept.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEVADA - Up to 30 per sweep on 580 acres of seed alfalfa at Jungo, Humboldt County; honeydew noticeable in more heavily infested areas. (Stitt). COLORADO - Light on alfalfa in Crowley, Otero, and Pueblo Counties. (Schweissing).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - NEBRASKA - Heavy in northeast district. Controls needed in 49 of 52 fields. Larvae 0-12 (averaged 2) per plant on 75 percent of plants. Larvae 0-6 (averaged 2) per plant on 15-95 (averaged 36.25) percent of plants in 4 Otoe and Cass County fields. Field with 95 percent infestation had heavy damage on emerging tassels. (Koinzan, Miller). NORTH DAKOTA - Up to 8 larvae on single corn plant in Cass County. Larvae very few on other plants. (Scholl). MINNESOTA - Some larvae nearing pupation in southwest district, mainly in second to fourth instars in other districts. Larval averages ranged 0.8-3.0 per 100 plants on 4-8 percent of corn. (Minn. Pest Rpt.). IOWA - First female of second generation collected in Polk County cornfield July 15. Development 10 days ahead of 1974. (Iowa Ins. Sur.).

WISCONSIN - European corn borer light to moderate in all areas, with heavier counts seldom involving over 35 percent of corn. Few southern sweet cornfields have spots with up to 75 percent of plants infested. Damage heavy in early, fresh-market planting of sweet corn in Crawford County. Near Lake Michigan, only first instars and first-flight moths in sweet corn on generally less than 15 percent of plants. First instars through pupae on sweet and field corn and few moths in blacklight traps in south-central and

southwest counties. European corn borer mostly third instars, except in eastern and northeastern counties. Pupae in southern advanced areas; second flight should begin July 26 to August 1. Wide range of larval instars in major sweet corn areas indicated that first flight of moths laid full complement of eggs over long period and that prolonged and heavy second flight of moths possible if warm, humid conditions continue. Infestations potentially heavy for mid-season and late sweet corn. (Wis. Ins. Sur.).

OHIO - First-generation European corn borers light in all tilled cornfields surveyed in central and east-central counties. Average percent infestation per 50 plants by county: Licking 3, Perry 6, Morrow 20, and Knox 4. (Lewis). MARYLAND - Adults ranged 5-10 per day in traps on lower Eastern Shore. Egg masses averaged less than 5 percent per plant in most sweet and field corn on Eastern Shore. Buildups, slowed 5-6 days by heavy rains, expected in 7 days. (U. Md., Ent. Dept.). NEW YORK - Infested 70-80 percent of cornstalks in Orleans and Genesee Counties week ending July 11. (Bostdorff).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - KANSAS - First-generation pupation by county: Stafford 65, Kiowa 50, and Stevens 33. Moth emergence expected to be well underway in Stafford County by July 25; emergence and egg laying expected to be of long duration. Infested 32 of 100 cornfields in Stevens County; maximum of 20 percent of stalks infested. (Bell).

FALL ARMYWORM (Spodoptera frugiperda) - FLORIDA - Heavy damage to late-planted field corn on farm near Marianna, Jackson County; also damaged by northern corn leaf blight. Crop plowed under due to combined damage. Fall armyworm damaged ends of ears on older field corn at same farm. Total of 500 acres involved. (Fla. Coop. Sur.). ILLINOIS - Damaged field corn in Wayne County. (Ill. Ins. Rpt.).

WESTERN BEAN CUTWORM (Loxagrotis albicosta) - KANSAS - Moths, eggs, and larvae found on corn in Grant County July 17, 1975. Collected and determined by M.L. Shuman. This is a new county record. Single adult taken in Republic County blacklight trap. Heavy (mostly eggs, some very small larvae) on corn in southern Finney, southeast Kearney, northeast Grant, and northwest Haskell Counties. (Bell).

CORN ROOTWORMS (Diabrotica spp.) - KANSAS - Larval damage serious to some corn in Sherman and Thomas Counties; adult counts not economic. (Bell). NEBRASKA - Adult averages ranged 2-3 per plant in scattered fields in Antelope, Pierce, and Stanton Counties. Adults ranged 0-7 per plant in central area; heaviest on silking and pollinating corn. Adults averaged less than one per plant in 4 Otoe and Cass County fields. (Koinzan et al.). SOUTH DAKOTA - Larval feeding in final stages. Adults emerged throughout eastern area. (Walgenbach).

MISSOURI - D. virgifera (western corn rootworm) heavy, 4-31 per plant, in lodged southwest area corn. Averaged 16 per plant in field with severe larval damage. Adults in northeast area ranged 0-6 per plant. D. undecimpunctata howardi (southern corn rootworm) adults averaged one per plant in central area field. (Munson). IOWA - Diabrotica spp. development 71 percent larvae, 20 percent pupae, and 9 percent adults in Pottawattamie County. (Iowa Ins. Sur.).

MINNESOTA - D. longicornis (northern corn rootworm) and D. virgifera in late instar, prepupal, and adult stages. One northern corn rootworm adult in soil in southwest district. Several western corn rootworm adults on corn in west-central district. Emergence ahead of early emergence in 1974. (Minn. Pest Rpt.).

ILLINOIS - D. longicornis and D. virgifera averages ranged 3-5 adults per corn plant in Whiteside County. (Ill. Ins. Rpt.). WISCONSIN - Late instars and pupae common in fields with lodged plants and on volunteer plants in peas, oats, and soybeans. D. virgifera and D. longicornis in southern areas. Lodging damage heaviest (80 percent) in treated Dodge County field. (Wis. Ins. Sur.). OHIO - D. undecimpunctata howardi adults fed on corn silks in Licking, Morrow, and Knox Counties. Averaged 4.5 per 100 plants in continuous corn. (Lewis). OHIO - D. longicornis adult emergence very light to date. Adults taken in only one of 5 continuous corn-fields surveyed in central and east-central counties. Adults one per 100 plants in Knox County field. (Lewis).

SORGHUM MIDGE (Contarinia sorghicola) - TEXAS - Counts on grain sorghum variable throughout north-central area. Many fields in north area through blooming and past sorghum midge stage. Increased in Hill and Ellis Counties. Several fields treated in Hill County. Very heavy in late-blooming sorghum in Blacklands area. Up to 30 per head in Falls County. Light in Navarro and Limestone Counties. Medium in Concho County. (McWhorter et al.).

TURF, PASTURES, RANGELAND

A SCARAB BEETLE (Ataenius spretulus) - ILLINOIS - Ranged 100-240 per square foot on few golf courses in Cook County; fed on roots of Poa annua (annual bluegrass) and bentgrass. (Ill. Ins. Rpt.).

A CARABID BEETLE (Agonoderus lineola) - NORTH CAROLINA - Damage heavy on golf greens near Pinehurst, Moore County. Adult feeding near ground surface caused bumps and direct injury to turf. (Robertson).

A THRIPS (Haplothrips purpuratus) - UTAH - Males and females collected on Atriplex canescens (fourwinged saltbush) at New Canyon (Ephraim Canyon) Ephraim, Sanpete County, by A.P. Plummer November 29, 1967. Determined by K. O'Neill. This is a new State record. (PPQ).

FORAGE LEGUMES

ALFALFA WEEVIL (Hypera postica) - NEVADA - Averaged one adult and 8 larvae per sweep on hay alfalfa in Diamond Valley, Eureka County. (Peters). UTAH - Larvae 0-4 and adults 0-1 per 10 sweeps on second growth at Lewiston, Cache County; none to rare where first crop treated. Damage light at Richmond, Cache County. (Davis et al.). MINNESOTA - Activity declined. Second instars trace in west-central, central, and east-central districts. (Minn. Pest Rpt.). WISCONSIN - Few larvae, less than one per sweep, as far north as Eau Claire, Eau Claire County. (Wis. Ins. Sur.).

EUROPEAN ALFALFA BEETLE (Subcoccinella vigintiquatuorpunctata) - OHIO - Adults on heavily damaged Saponaria officinalis (bouncing bet) along railroad tracks in Trumbull County. (Custer, Kelly).

ALFALFA BLOTCH LEAFMINER (Agromyza frontella) - MARYLAND - Larva collected on alfalfa near Greensboro, Caroline County, by B. Rouse June 25, 1975. Determined by G. Steyskal. This is a new State record. Statewide alfalfa survey planned for August. (U. Md., Ent. Dept.).

MEADOW PLANT BUG (Leptopterna dolobrata) - WASHINGTON - Heavy on mixed timothy and hay alfalfa plantings at Ellensburg, Kittitas County. Collected by P. Bloom, A.H. Retan, and A.L. Antonelli June 2, 1975. Determined by J. Lattin. This is a new county record. (Bloom et al.).

PEA APHID (Acyrthosiphon pisum) - NEVADA - Ranged 250-1,000+ per sweep in several hay alfalfa fields at Fallon, Churchill County; Acyrthosiphon sp., caraganae group, comprised 0-36 percent of sample. Predators, lady beetles averaged up to 15 adults and larvae per sweep, numerous in all fields. Pea aphid ranged 12-80 per sweep on hay alfalfa south of Reno, Washoe County; Acyrthosiphon sp., caraganae group, comprised 2-60 percent of sample. Trace numbers of Acyrthosiphon sp., caraganae group, collected from hay alfalfa at Lovelock, Pershing County, by R.W. Lauderdale July 9, 1975. Determined by R.C. Beehtel. This is a new county record. (Barclay et al.). Pea aphid averaged 250 per sweep of seed alfalfa in Reese River, Lander County; fields had received cleanup treatment in June but no additional treatment. Ranged 3-150+ per sweep on 580 acres of seed alfalfa at Jungo, Humboldt County. Averaged 3 per sweep on hay alfalfa in Diamond Valley, Eureka County. (Hilbig et al.).

IDAHO - Pea aphids 300 per sweep on seed alfalfa at Marsing, Owyhee County. (Baird). NORTH DAKOTA - Ranged 10-250 (averaged 75) per 100 sweeps in Morton and Sioux Counties. (Brandvik). WISCONSIN - Counts of 25-100 per sweep of alfalfa common in second-growth fields in southern counties. Under 10 per sweep in Chippewa, Dunn, Eau Claire, Jackson, and Clark County. (Wis. Ins. Sur.).

SOYBEANS

MEXICAN BEAN BEETLE (Epilachna varivestis) - INDIANA - Egg laying by newly emerged adult generation underway in southern districts. Adults ranged 50,000-60,000 per acre in Lawrence County soybean field. (Anderson, Edwards). MARYLAND - Newly emerged adults increased in all soybean areas on Eastern Shore and in southern area. Defoliation ranged 6-15 percent; activity reduced due to heavy rains. (U. Md., Ent. Dept.).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MISSISSIPPI - Adult averages per 25 sweeps of prebloom soybeans by county: Oktibbeha (30 on blooming soybeans), Clay, and Lowndes 6 week ending July 11; currently, Prentiss and Lee 4, Carroll one, Montgomery 0.25. (Gregory et al.).

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - MISSISSIPPI - Adult and nymphal averages per 25 sweeps of soybeans by county: Prentiss and Lee 3 in prebloom, Carroll 1.75, and Montgomery 0.5, Rankin 4 in blooming. (Brown et al.).

ALABAMA - Threecornered alfalfa hopper noticeable but not economic in Chilton, Bibb, and Cherokee Counties. (Henderson et al.).

GREEN CLOVERWORM (Plathypena scabra) - OKLAHOMA - Moderate to heavy on soybeans in Garvin County. Light to moderate in eastern third of State. (Okla. Coop. Sur.). MISSISSIPPI - Averaged 0.5 per row foot in 175-acre field of prebloom soybeans in Prentiss County; 0.75 per row foot in 60-acre Montgomery County field. (Hulett, Gregory). TENNESSEE - Larval feeding very light on foliage in several fields in western area. (Pendergrass).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - GEORGIA - Light to heavy in south-central and southwest areas week ending July 12. Severe damage probable in 14 days. (French).

SOYBEAN CYST NEMATODE (Heterodera glycines) - TENNESSEE - Damage severe in soybean field at Lincoln, Lincoln County. (Cagle).

PEANUTS

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - TEXAS - Damage extensive to young peanuts in Comanche County. Multiple generations in 67 percent of fields; heavier infestations in late-planted peanuts. (Curtis, Stewart). OKLAHOMA - Heavy infestation on peanuts in Marshall County declined to 34 percent due to rain and pupation. Cocoons common, 4-6 around some plants. Light, 1-3 percent, in Hughes County. (Okla. Coop. Sur.).

REDNECKED PEANUTWORM (Stegasta bosqueella) - OKLAHOMA - Small second-generation larvae on up to 30 percent of peanut terminals in Marshall County. (Okla. Coop. Sur.).

COTTON

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Increased in some older fields of cotton with immature bolls in Blacklands area but generally light. Punctured 50 percent of squares in one field, less than 15 percent in other fields, in Hill County. Continued to hatch and infest several fields in Collin, Hunt, Kaufman, Ellis, and Delta Counties. Heaviest in fields not treated for overwintered weevils. Ranged 10-92 percent in north-central area. Ranged 12-15 percent in treated fields; 60-93 percent in untreated fields. Adults still feeding and laying eggs in Rio Grande Valley area. Many fields with squares only in terminals have 100 percent punctured squares. Less than 5 percent punctured squares in many other fields. Leggett trap caught 16 adults in Knox County. Light to moderate square damage in Fisher, Knox, and Wilbarger Counties. Medium in Nolan, Concho, and McCulloch Counties. Adults in pheromone traps increased second week of July in south-central area. (Turney et al.).

OKLAHOMA - Boll weevils numbered 25 in 124 pheromone traps in Jackson County. Punctured squares light to heavy in Grady County. (Okla. Coop. Sur.). LOUISIANA - Emerged from infested squares in older cotton. Expect punctured-square counts to increase for 7-10 days and another boll weevil "hatch-out" from squares on ground at end of July. (Tynes). MISSISSIPPI - Percent punctured squares by county: Rankin 3 on 100 acres, Lincoln 10 on 500 acres, Tate 0-15 on 5,000 acres, and Yalobusha 0-36 (averaged 4) on 3,300 acres. (Robinson).

ALABAMA - First boll weevil "hatch-out" of year underway statewide including mountain and Tennessee River Valley areas. Punctured squares ranged 15-95 percent in all fields except in larger fields in Limestone, Lawrence, Colbert, Madison, and Morgan Counties. Controls in northern area applied 14-21 days earlier than in 1974. Heavier than in several years. (McQueen). GEORGIA - Infestation general statewide, punctured squares ranged 0-28 percent in 12 fields in Calhoun and Clay Counties week ending July 12. Infestations moderate to heavy in Crisp and Colquitt Counties; most cotton treated for weevil control. (Sloan et al.).

SOUTH CAROLINA - Second brood of boll weevil built up on cotton statewide. Damage economic in untreated fields. (Sparks). NORTH CAROLINA - First-generation adults emerged in all cotton counties. Combination treatments for weevils and bollworms underway. Infestation level under control in most fields under pest management program. (Worley). TENNESSEE - Punctured squares ranged 4-62 percent in southwestern tier of counties. Treatments needed in most fields. First-generation hatch expected next 7 days. Dry, hot weather did not favor first-generation larvae in this area. Very few larvae in traps. Punctured squares ranged 1-50 percent in south-central area. Most fields below treatment level. (Locke, Cagle).

BOLLWORMS (Heliothis spp.) - ARIZONA - Heaviest larval range per 100 cotton terminals by county: Pinal 1-5 in 4 of 55 fields and Maricopa 6-12 in one of 42 fields. (Ariz. Coop. Sur.). TEXAS - H. zea (bollworm) egg laying very heavy on cotton in Hill and Navarro Counties, increased greatly in Hill and Ellis Counties. Eggs heavy in all ages of cotton. Egg and larval counts increased to high of 72 percent and 25 percent, respectively, in field at San Juan, Hidalgo County. High larval counts of 25 percent in several other fields in Cameron and Hidalgo Counties; most egg counts did not exceed 50 percent. Virtually no bollworm activity in dryland fields. Declined in Ellis, Hunt, Kaufman, Collin, and Delta Counties; adults in Ellis and Delta Counties. Egg laying expected to increase next week and small larvae should be abundant. Eggs light on foliage in several fields in Childress and Fisher Counties. H. zea light all season in south-central area. (Hoelscher et al.). H. virescens (tobacco budworm) larvae in Hidalgo County comprised 80 percent of population in untreated cotton and 100 percent in treated cotton. Adults in Ellis and Delta County fields. (Norman et al.).

OKLAHOMA - H. zea larvae light and adults numerous on Grady County cotton. (Okla. Coop. Sur.). ARKANSAS - Percentage of H. virescens in total Heliothis population on cotton heavier than usual in east-central area and in Jefferson County. Parasitism of tobacco budworm light in this county. (Boyer). ALABAMA - Heliothis spp. flights light. Larvae heavy in many fields in Cullman, Morgan, and Colbert Counties due to improper management of earlier insect conditions. (McQueen). TENNESSEE - Heliothis spp. larvae much heavier than usual for time of year in cotton areas. Treatments required in many rank fields. Eggs and larvae ranged 1-14 per 100 terminals in western area. Larvae nearing size where control will be very hard. (Locke et al.). SOUTH CAROLINA - H. zea and H. virescens moths and egg laying increased. (Sparks).

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Very heavy on cotton in Blacklands area; damage heavy, square set inadequate, in June-planted cotton. Heavy in Hill and Ellis Counties. Ranged 4-178 per 100 plants in north-central area. Ranged 40-120 per 100 untreated, late-planted cotton plants in Kaufman and Ellis Counties. Light to moderate in Baylor, Childress, Fisher, Jones, and Wichita Counties. Heavy in few older fields scattered throughout Rolling Plains. Counts of 150 on 100 terminals in Childress County field. Medium in Tom Green County. (Buxkemper et al.).

MISCELLANEOUS FIELD CROPS

SUNFLOWER BEETLE (Zygogramma exclamationis) - NORTH DAKOTA - Larvae infested most sunflower fields in Eddy, Foster, and Griggs Counties. Up to 8 (averaged less than one) larvae per infested plant in Griggs County. (Carpentier, Scholl).

CARROT BEETLE (Bothynus gibbosus) - TEXAS - Continued light in light traps at Lockett, Wilbarger County. (Boring). OKLAHOMA - Counts in each light trap by county: Tillman 240, Greer 49, and Jackson 3. (Okla. Coop. Sur.).

POTATOES, TOMATOES, PEPPERS

VARIEGATED CUTWORM (Peridroma saucia) - OHIO - Current outbreak seemed most widespread for species. Almost all potato growers in Wayne County applied emergency controls. Organic phosphate insecticides killed most fifth and earlier instars; many sixth instars still present. Many passed into non-feeding prepupal state, pupation began July 15. Emergency treatments applied aerially to Putnam County potato fields. Also problem on Huron County celery; controls applied every 3 days. (Rings, Treece). WISCONSIN - Heavy leaf feeding by early instars in potato field in Langlade County. Up to 35 larvae under soil surface near one plant. (Wis. Ins. Sur.).

GREEN PEACH APHID (Myzus persicae) - ILLINOIS - Damage economic to commercial green peppers in Kane and DeKalb Counties. (Ill. Ins. Rpt.).

BEANS AND PEAS

PEA APHID (Acyrthosiphon pisum) - WISCONSIN - Continued heavy, 35-200+ per sweep, in some untreated peas. Heaviest in eastern counties. No peas required treatments west of Dodge and Columbia County line, but all fields near Lake Michigan treated. Parasitism by braconid wasps began increase in eastern areas; up to 35 percent of larger aphids noticeably parasitized. Less than one per sweep on Eau Claire County peas. (Wis. Ins. Sur.).

COLE CROPS

IMPORTED CABBAGEWORM (Pieris rapae) - WISCONSIN - Caused most of damage to cabbage statewide. Adults laying eggs. Larvae up to half grown. (Wis. Ins. Sur.).

CABBAGE MAGGOT (Hylemya brassicae) - WISCONSIN - Adult emergence peaked, heavier than first generation in all areas of Racine, Kenosha, and Outagamie Counties. (Wis. Ins. Sur.).

DECIDUOUS FRUITS AND NUTS

CODLING MOTH (Laspeyresia pomonella) - NEW MEXICO - Moth averages ranged 6.2-22.6 per pheromone trap per county in 8 counties week ending July 11. (N.M. Coop. Rpt.). IDAHO - Catches of males in Moscow, Latah County, pheromone trap were 16 on July 7-10, 5 on July 11, 6 on July 12, on July 13, 2 on July 14, and 5 on July 16. (Portman).

EUROPEAN CORN BORER (Ostrinia nubilalis) - SOUTH CAROLINA - Larvae bored into young shoots of peach trees in Edgefield County. Infested 2-3 twigs per tree in 10-acre block of 2-year-old trees. (Pollet).

APPLE MAGGOT (Rhagoletis pomonella) - MINNESOTA - Emergence reaching peak. Hot, dry weather increased activity over previous weeks. Trap catches by county: Hennepin 48, Washington 53, and Brown 7 and 20. Much heavier than in previous years. (Minn. Pest Rpt.).

WALNUT CATERPILLAR (Datana integerrima) - TEXAS - Second summer generation outbreak on pecans northeast of Georgetown along San Gabriel River. Light, damaging in some spots, along Guadalupe River near Seguin. (Harris). OKLAHOMA - Moderate to heavy on Payne County pecans and Pawnee County walnuts. (Okla. Coop. Sur.). MISSISSIPPI - Larvae increased on pecans statewide. Taken in Sharkey, Bolivar, and Oktibbeha Counties; moderate in one 70-tree orchard week ending July 11 (Hines).

PECAN NUT CASEBEARER (Acrobasis nuxivorella) - TEXAS - Second generation light in Hill, Erath, and Comanche Counties and still active throughout south-central area. Light in Sterling County. (Hoelscher et al.). NEW MEXICO - Counts ran about 9 percent at Carlsbad, Eddy County. Near zero in treated groves. Second-generation adult flight next period. (N.M. Coop. Rpt.).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Continued to increase; no significant damage to pecans in Blacklands. Continued to damage pecan trees in most counties in Uvalde area. (Hoelscher, Stewart).

ORNAMENTALS

VARIEGATED CUTWORM (Peridroma saucia) - OHIO - Seriously damaged outdoor annuals in Wayne County, especially petunias and carnations. (Rings).

A GELECHIID MOTH (Coleotechnites huntella) - OREGON - Counts and damage heavy on rhododendron at southwest Portland, Multnomah County. Early instars on new leaves. Controls successful. (Collier).

FOREST AND SHADE TREES

SPRUCE BUDWORM (Choristoneura fumiferana) - WISCONSIN - Eggs predominant, 50-60 percent hatched. Brown foliage in most balsam stands in eastern Vilas and most of Oneida and western Forest Counties. (Wis. Ins. Sur.).

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - MARYLAND - Moderate to heavy on Eastern Shore and southern areas. About 50 percent of larvae pupated. Damage not expected to decrease. (U. Md., Ent. Dept.).

WESTERN PINE BEETLE (Dendroctonus brevicomis) - ARIZONA - This species and D. approximatus (Mexican pine beetle) infested 65 trees on 40 acres of over-mature ponderosa pine at Bonito Rock in Fort Apache Indian Reservation, Apache County. (Ariz. Coop. Sur.).

LARCH SAWFLY (Pristiphora erichsonii) - WISCONSIN - Heavy in Langlade, Marathon, and Shawano Counties south to Marquette County. Nearly defoliated some groups of trees in swamps. Larvae scarce on any tree. (Wis. Ins. Sur.).

BLACK PINELEAF SCALE (Nuculaspis californica) - NEVADA - Moderate to heavy, up to 66 scales per inch of needle, on 100+ acres of Pinus jeffreyi and P. ponderosa at Genoa, Douglas County. (Barclay, Bechtel).

SARATOGA SPITTLEBUG (Aphrophora saratogensis) - WISCONSIN - Heavy in some Vilas County plantations; adults predominant. (Wis. Ins. Sur.).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - NORTH DAKOTA - Adults collected from forest service multilure pheromone sticky traps at Fargo, Cass County, by R. Carlson June 6, 1975. Determined by D.M. Anderson. This is a new State record. (PPQ).

LOCUST LEAFMINER (Xenochalepus dorsalis) - ALABAMA - Defoliated 60-75 percent of many black locust trees along highways and at residences throughout Limestone County. (Cain). KENTUCKY - Damage most evident in central area. Defoliation ranged 80-95 percent on 70 percent of trees. (Barnett).

A WEEVIL (Polydrusus impressifrons) - OREGON - Collected in large numbers feeding on birch (primarily on one tree) and red Norway maple (one small tree) near Wilsonville, Clackamas County, May 23. Collected and determined by R.L. Westcott. This is a new county record. (Koehler, Westcott).

BAGWORM (Thyridopteryx ephemeraeformis) - ALABAMA - Defoliated many small sycamore trees along highways and roads throughout Limestone County. (Cain). WEST VIRGINIA - Defoliated 75-100 percent of 25 sycamore trees at South Charleston, Kanawha County. (Miller, Hacker).

MIMOSA WEBWORM (Homadaula anisocentra) - KENTUCKY - More webs evident on ornamental plantings. Affected northern areas more than central or southern areas. (Barnett).

A TORTRICID MOTH (Archips negundanus) - UTAH - Defoliated several hundred boxelder trees in northern area, larvae mostly full grown. Adults flying in increasing populations for 14 days in Cache, Box Elder, and Salt Lake Counties. (Knowlton, Stephens).

A SAWFLY (Caliroa lineata) - KENTUCKY - Larval damage to oaks continued, most evident in southern and southwestern areas. (Barnett). WEST VIRGINIA - Damage moderate to heavy on 2,000 acres of pin oak in Pipestem State Park, Summers County. Infested 1,200-1,500 acres in Jumping Branch but appears lighter than in 1974 in original area. (Keaton).

A CICADA (Diceroprocta apache) - ARIZONA - Hundreds emerging in each urban home yard at Salt River Valley, Maricopa County. Heavy emergence in mesquite groves in Tucson Valley, Pima County. Egg laying damage to young deciduous trees visible. (Ariz. Coop. Sur.).

WALNUT SCALE (Quadraspidiotus juglansregiae) - CALIFORNIA - Infested large ash trees at Hanford, Kings County. Heavy dieback on trees. (Cal. Coop. Rpt.).

MAN AND ANIMALS

SCREWWORM (Cochliomyia hominivorax) - Total of 286 cases reported from continental U.S. July 6-12 as follows: Texas 279, New Mexico 4, Arizona 3. Total of 309 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 151 cases reported in Mexico south of Barrier Zone. Number of sterile flies released this period totaled 147,781,200 as follows: Texas 137,319,600; New Mexico 2,298,600; Arizona 8,163,000. Total of 14,275,800 sterile flies released within Barrier of Mexico and 2,000,000 released south of Barrier. (Vet. Serv.).

HORN FLY (Haematobia irritans) - UTAH - Annoying at Kanab, Kane County. Moderate on cattle at Richmond, Cache County. (Thornley). TEXAS - Increased numbers in north-central area should be controlled. Continued problem for livestock in several counties throughout Rolling Plains area. Light damage in Tom Green County. Heavy in Sterling County. Medium damage in Nolan County. (Turney et al.). OKLAHOMA - Averaged 300 per head on cows and 500 per head on yearlings in Payne County. Medium in Comanche County. (Okla. Coop. Sur.). NEBRASKA - Averaged 500+ on untreated cattle in Lincoln County. (Campbell). MISSISSIPPI - Adults averaged 150 on 700 cattle in Montgomery County, 100 on 100 cattle in Noxubee County, and 250 on 50 cattle in Wayne County week ending July 11. Currently averaged 100 per head in Oktibbeha County. (Robinson, Combs).

FACE FLY (Musca autumnalis) - MISSISSIPPI - Adults averaged 20 per face on 700 head of cattle in Montgomery County and 31 per face on 50 head in Oktibbeha County week ending July 11. Averages currently ranged 15-20 per face on Oktibbeha County cattle. (Robinson). TENNESSEE - Still heavy on untreated cattle in central area, treatments effective when properly applied. Cumberland and Maury Counties are new county records. Collected May 19, 1975. Collected and determined by R.R. Gerhardt. See CEIR 25(22):447. (Gordon, Bruer). KENTUCKY - Adult averages of 14.6 and 14.1 at 2 Bourbon County locations and 13.6 at Fayette County location. (Moneyham). NEBRASKA - Averages ranged 15-20 on cattle in Lincoln County. (Campbell).

STABLE FLY (Stomoxys calcitrans) - MISSISSIPPI - Adults averaged 4 per leg on stabled cattle in Marshall County. (Robinson). WISCONSIN - Severely annoyed Polk County cattle. (Wis. Ins. Sur.). OKLAHOMA - Averaged 5 per head on Payne County dairy cattle. (Okla. Coop. Sur.). NEBRASKA - Averages ranged 15-20 per leg on cattle in untreated lots in Lincoln County. (Campbell).

MOSQUITOES - TEXAS - Heavy in Baylor, Hardeman, and Wilbarger Counties. (Boring). ARKANSAS - Psorophora confinnis heavier than since 1970 in Grand Prairie and northeast areas. Catches running 300 per New Jersey light trap per night in control area and 30,000 per trap per night outside control area in Lonoke County.

Anopheles spp. increased. (Meisch). OHIO - Aedes hendersoni larvae collected from treehole at Gambier, Knox County, April 2, 1975, by J. Towner. Determined by R.L. Berry. This is a new county record. (Lewis). WISCONSIN - Resumption of hot weather brought on heavy Aedes vexans emergence in several areas. Heavy biting in low-lying Sheboygan County peafield, in sections of Madison, and near Wisconsin River. Unbearable in Calumet County. Annoyance to cattle medium to severe in Polk, Outagamie, and Kewaunee Counties. Outside bunk feeding of cattle impossible on farm in Polk County. Recent dry weather should quickly reduce current problem. (Wis. Ins. Sur.). MINNESOTA - Declined slightly at Minneapolis and St. Paul with hot, dry weather. A. vexans dominates all types of collections. Aedes sticticus also important component in light trap and bite collections; more prevalent in 1975 than in previous years. (Minn. Pest Rpt.).

BENEFICIAL INSECTS

A PTEROMALID WASP (Sceptrothelys grandiclava) - WISCONSIN - Adults collected emerging from overwintering cocoons of Bathyplectes curculionis (an icheumonid wasp) at Mazomanie, Dane County, and Newark, Rock County, May 9, 1975, by M.S. Conrad. Determined by G. Gordh. This is a new State record. See CEIR 25(25):513. (PPQ).

A BRACONID WASP (Lysiphlebus testaceipes) - NEBRASKA - Parasitism of Schizaphis graminum (greenbug) still under 2 percent in eastern and southeastern districts. (Gary, Miller).

AN ICHNEUMONID WASP (Lemophagus curtus) - OHIO - Recovered from Oulema melanopus (cereal leaf beetle) larvae at field insectary in Jefferson Township, Guernsey County, June 28 by P. Shipman and F. Prentice. (PPQ).

A MYMARID WASP (Anaphes flavipes) - NEW YORK - This parasitoid recovered from Oulema melanopus (cereal leaf beetle) eggs by county as follows: Onondaga - near Baldwinsville Township, June 20 by J. Ellenberg; Wayne - Ontario Township, June 16 by T. Crowe; Yates - Middlesex Township, June 19 by T. Crowe. All determinations by R.B. Gaines. These are new county records. WEST VIRGINIA - Taken in Union Magisterial District, Cabell County, June 11 by J. Hacker. (PPQ).

A EULOPHID WASP (Tetrastichus julis) - VIRGINIA - Recovered from Oulema melanopus (cereal leaf beetle) larvae at field insectary in Stonewall Magisterial District, Highland County, June 26 and in Shawsville Magisterial District, Montgomery County, June 6 by H. Smith and B. Jones. (PPQ).

A CINNABAR MOTH (Tyria jacobaeae) - WASHINGTON - Heavily defoliated tansy ragwort in three-fourths of 30-acre field at Amboy, Clark County, by July 7, about 0.75 mile from original release site. (Shanks).

A WEEVIL (Rhinocyllus conicus) - WEST VIRGINIA - Infested 70-80 percent of heads of Carduus crispus (curled thistle) at 1972-release sites in Monroe County. Release of thistle heads at 2 Pendleton County sites on curled thistle; 3 Grant County sites, 2 Hardy County sites, 2 Hampshire County sites, and at 2 Monroe County sites on musk thistle. (Hacker).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

CEREAL LEAF BEETLE (Oulema melanopus) - WISCONSIN - Very light in 3 Kenosha County oatfields and 3 Walworth County fields. One larva taken in all fields except in Kenosha County where 3 collected. (Wis. Ins. Sur.). PENNSYLVANIA - Adults 2 per 100 sweeps on 36-inch Chester County oats. Larvae ranged 1-6 per 10 foot row on 36-inch to headed oats in Chester, Lackawanna, and Wayne Counties. (Sporer et al.). VERMONT - Larvae collected on oats at Pownal, Bennington County, by A.J. Helland and P. Benedict June 17, 1975. Determined by R.E. White. This is a new State record. (PPQ). Surveys negative in Addison, Chittenden, Grand Isle, and Rutland Counties. (Benedict).

GRASSHOPPERS - NEW MEXICO - About 50,000 acres of Federal, State, and private lands under treatment near Monero, Rio Arriba County. (N.M. Coop. Rpt.). ARIZONA - Up to 100 per square yard in some areas on San Carlos Indian Reservation. Total of 50,112 acres treated June 26-27. (Ariz. Coop. Sur.). NEVADA - Melanoplus sanguinipes and M. bivittatus (fourth instars to adults) averaged 5 per square yard on 480 acres of hay alfalfa and mixture of hay alfalfa and oats, and up to 15 per square yard on 20 acres of hay alfalfa and bromegrass mixture in Diamond Valley, Eureka County. (Peters). WASHINGTON - Camnula pellucida ranged 20-50+ per square yard on 5,000 acres of meadowland about 25 miles north of Omak in Pine Creek area, Okanogan County, July 1. (Blackburn). MONTANA - Grasshoppers heavy in about 24 sections where crops threatened between Glasgow and Malta (Saco Divide) in Valley and Phillips Counties. Heavy, 100 per square yard, in or near croplands in Hill, Dawson, Toole, Roosevelt, Broadwater, Daniels, and Fergus Counties: 40 percent adults. (Pratt).

NORTH DAKOTA - Grasshoppers averaged less than one per square yard in cropland in Morton, Grant, and Sioux Counties. Up to 15 (averaged 4) per square yard in margins in Adams, Hettinger, and Slope Counties; up to 6 (averaged less than one) per square yard in fields. M. bivittatus, M. sanguinipes, and M. packardii dominant; development second instar to adults. First instar M. femurrubrum in field areas. Averaged less than one per square yard in Eddy, Foster, and Wells Counties. Up to 18 (averaged 2.5) per square yard in Kidder County margins; up to 9 (averaged 2) per square yard in fields. M. bivittatus and M. sanguinipes dominant: development second instar through adult. Up to 50 (averaged 13) per square yard in wildlife refuge land; 480 acres will be sprayed near Goodrich, Sheridan County, in early August. Alfalfa and clover mixture carrying highest concentration of grasshoppers. M. bivittatus dominant: development first instar to adults. Some M. sangunipes present. (Brandvik et al.). NEBRASKA - More than 10 grasshoppers per square yard in few central area fields, moving into corn from brome and alfalfa as it was cut (Raun).

GYPSY MOTH (Porthetria dispar) - PENNSYLVANIA - Female pupae in larval traps for first time at Drums, Luzerne County, July 7. Pupae in Springbrook Township, Lackawanna County, July 8. Pupae noted in Monroe, Pike, and Wayne Counties July 8. Males flying at Moosic, Luzerne County, July 11. (Sporer, Jackowski). ILLINOIS - Seven adults in trap in Cook County. (Ill. Ins. Rpt.).

JAPANESE BEETLE (Popillia japonica) - KENTUCKY - Continued damage to trees, shrubs, and garden vegetables over eastern area. (Barnett). OHIO - Reports of adult damage still numerous, especially in southern and northeastern counties. Hosts include corn (one per 10 plants in Perry County), alfalfa (0.4 per sweep in Perry County), and honeylocust (about 15 per 20-foot tree in Morrow County). (Lewis). PENNSYLVANIA - Adults on grapes at Driftwood, Cameron County, and on field corn at Sterling Run, Cameron County, July 7-8. Adults 5 per plant on rose bushes at Avoca, Luzerne County, July 8 and on rose bushes, sassafras, and cherry trees at Bloomsburg, Columbia County, July 9. (Kemiston, Jackowski). NEW YORK - Many reports on roses, home fruit trees, grapes, and shrubs in Chautauqua, Onondaga, and Westchester Counties. Heavy numbers complicating controls in Orange County. (VanNostrand et al.). RHODE ISLAND - Adult emergence heavy in Providence, Kent, and Bristol Counties weeks ending July 11. Very bothersome on ornamentals and vegetable gardens in residential areas. (King, Relli).

MEXICAN BEAN BEETLE (Epilachna varivestis) - IDAHO - Eggs and adults at Boise, Ada County. Negative at Rupert, Minidoka County, and at Twin Falls and Kimberly, Twin Falls County, July 10. (Moore).

MORMON CRICKET (Anabrus simplex) - NEVADA - Adults averaged 3 per square yard on 26,000 acres of rangeland during recently completed surveys in Pony Creek area, Surphur Spring Range, Elko County, No mating or spermatophores noted. Control program will begin July 19. (Kail).

PINK BOLLWORM (Pectinophora gossypiella) - ARIZONA - Highest range of infested bolls per 100 by county: Yuma 16-25 in 8 of 34 fields and Maricopa 1-5 in 2 of 32 fields. (Ariz. Coop. Sur.).

WHITEFRINGED BEETLES (Graphognathus spp.) - ALABAMA - Adults ranged 1-2 per plant on 60 acres of Chilton County sweetpotatoes. (Futral).

CORRECTIONS

CEIR 25(27):565 - MISSISSIPPI - "8 Heliothis zea and 29 Laspeyresia pomonella" should read "8 Heliothis virescens and 29 Heliothis zea."

CEIR 25(28):569, 580, 583 - A TABANID FLY (Silvius pollinosus) - NEW MEXICO - Delete new State record. Well known from New Mexico in at least 6 counties including Chaves County. Reported in literature by C.B. Philip, 1947, American Midland Naturalist 37(2):267 and perhaps earlier. (Pechuman).

CEIR 25(29):598 - CORRECTIONS - "PEA APHID ... Fallon, New Mexico, ... " should read "... Fallon, Nevada,... "

HAWAII INSECT REPORT

New State Record - SPOTTED ALFALFA APHID (Therioaphis maculata) nymphs and adults heavy on Medicago polymorpha (burclover) at Hickam Air Force Base, Honolulu, Oahu, by J.W. Beardsley May 30, 1975. Determined by M.B. Stoetzel; confirmed by L.M. Russell. (Beardsley).

General Vegetables - CABBAGE WEBWORM (Hellula rogatalis) heavy; foliar damage noted in small planting (150 square feet) of daikon at Waimanalo, Oahu. Infested more than 90 percent of plants. All stages of BROAD MITE (Polyphagotarsonemus latus) moderate in 0.75 acre of eggplant at Waimanalo, Oahu. Younger leaves thickened and malformed; older leaves not infested. Usually abundant during cooler winter months. LEAFMINER FLIES (Liriomyza spp.) moderate in acre of snap beans at Waimanalo; damage severe on 20-30 percent of leaves. Heavy infestations and damage in one-eighth acre of cucumber in same area. (Sanidad, Mau). TOBACCO FLEA BEETLE (Epitrix hirtipennis) heavy on 0.25 acre of eggplant at Waimanalo. Damaged 75 percent of leaves. (Sanidad).

Beneficial Insects - A TINGID BUG (Leptobyrsa decora) heavy on lantana foliage at Kokee, Kauai. Defoliated 50-100 percent of 5 miles of lantana on roadside. All stages present. (Sugawa). Adults of a TEPHRITID FLY (Procecidochares alani) continued very heavy at Onomea and Panaewa, Hawaii. Infested nearly all terminals and lateral shoots. Infestations at Kolekole appeared to be approaching level at Onomea. Relatively light at Kona. Activity of a PTEROPHORID MOTH (Oidaematophorus sp.) noticeable for first time on site at Kona. Eggs, larvae, and one adult observed (3,500-foot elevation). Last release on site made over a year ago. (Matayoshi).

DETECTION

New State Records - ALFALFA BLOTCH LEAFMINER (Agromyza frontella) - MARYLAND - Caroline County. (p. 618). CEREAL LEAF BEETLE (Oulema melanopus) - VERMONT - Bennington County. (p. 626). A PTEROMALID WASP (Sceptrothelys grandiclava) - WISCONSIN - Dane and Rock Counties. (p. 625). SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - NORTH DAKOTA - Cass County. (p. 623). SPOTTED ALFALFA APHID (Therioaphis maculata) - HAWAII - Oahu Island. (p. 628). A THRIPS (Haplothrips purpuratus) - UTAH - Sanpete County. (p. 617).

New County Records - AN APHID (Acyrthosiphon sp., caraganae group) NEVADA - Pershing (p. 618). FACE FLY (Musca autumnalis) TENNESSEE - Cumberland, Maury (p. 624). MEADOW PLANT BUG (Leptopterna dolobrata) WASHINGTON - Kittitas (p. 618). A MOSQUITO (Aedes hendersoni) OHIO - Knox (p. 625). A MYMARID WASP (Anaphes flavipes) NEW YORK - Onondaga, Wayne, Yates (p. 625). A WEEVIL (Polydrusus impressifrons) OREGON - Clackamas (p. 623). WESTERN BEAN CUTWORM (Loxagrotis albicosta) KANSAS - Grant (p. 616).

LIGHT TRAP COLLECTIONS

	Temperature °F.	Precipitation (inches)	Type of trap	Agrotis ipsilon (black cutworm)	Estigmene acrea (salt marsh caterpillar)	Rhopa auxiliaris (army cutworm)	Faronta diffusa (wheat head armyworm)	Feltia subterranea (granulate cutworm)	Heliothis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Laspeyresia pomonella (codling moth)	Loxostege commixtalis (alfalfa webworm)	Loxostege rantalis (beet webworm)	Maduca quinquemaculata (tomato hornworm)	Maduca sexta (tobacco hornworm)	Ostrinia nubilalis (European corn borer)	Peridroma saucia (variegated cutworm)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera ornithogalli (yellowstriped armyworm)	Trichoplusia ni (cabbage looper)	Crops
ARIZONA																							
Mesa 7/7-13			BL	18		218				24							31		89		10	24	
FLORIDA																							
Gainsville 7/11-17			BL					8	1	3					2		3	2	2	21	3		
INDIANA (Counties)																							
Porter 7/4-11			BL	4										1	1	74	34	49				1	
Tippecanoe 7/4-11			BL	4												290	32	110					
KANSAS																							
Great Bend 7/8-15			BL	199		6	116			27								12			12		
Tribune 7/10-14			BL				271																
KENTUCKY (Counties)																							
Caldwell 7/16			BL												2		13						
Fayette 7/16-18			BL													1		1			2		
MINNESOTA																							
Worthington 7/10-16			BL															18					
MISSISSIPPI																							
Stoneville 7/11-17	63-94	Trace	2BL	12	1			15	1	32							5	76			91		
NEBRASKA																							
North Platte 7/12-18			BL											1		3		13					
Scottsbluff 7/12-18			BL	2		3											22	42					
NEW JERSEY																							
Seabrook 7/9-15			BL	26								23		5									
Vineland 7/9-15			BL	14																			
NORTH DAKOTA																							
Bismarck 7/13,15			BL								53							2					
Bottineau 7/10			BL															1					

LIGHT TRAP COLLECTIONS

	Temperature °F.	Precipitation (inches)	Type of trap	Agrotis ipsilon (black cutworm)	Setiaxene gerens (southern variegated cutworm)	Xylena auxiliaris (army cutworm)	Paronia diffusa (velvet bean armyworm)	Pyllis subterranea (pronghorn cutworm)	Heliothis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Laphygma frugiperda (fall armyworm)	Loxostege commixtalis (garden webworm)	Loxostege rantalis (garden webworm)	Loxostege sticticalis (beet webworm)	Manduca quinquemaculata (tomato hornworm)	Manduca sexta (tobacco hornworm)	Ostrinia nubilalis (European corn borer)	Peridroma saucia (variegated cutworm)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera ornithogalli (yellow-striped armyworm)	Trichoplusia ni (cabbage looper)	Crops
OHIO																								
Wooster 7/12-18			3BL	123													45	52			6	2		
PENNSYLVANIA (Districts)																								
Central 7/6-14			8BL	33							2						3	6	278					
South East 7/6-14			6BL	28														13	227					
SOUTH DAKOTA																								
Brookings 7/11-16			BL	12			75										83	110	69			1		
TENNESSEE (Counties)																								
Henry 7/9-16			BL	18						6							5	12	64		8			
Weakley 7/9-16			BL	6						10						3	4	4	81		12			
VIRGINIA																								
Blacksburg 7/11-17			BL	2												9	4	16	18	2				
WEST VIRGINIA (Counties)																								
Kanawha 7/17			BL																4		7	4		
Randolph 7/15			BL	40	1									1				34	58			8		
WISCONSIN																								
Lancaster 7/10-16			BL	5														34	110					
Mazomanie 7/10-16			BL	1														4	17					

WEATHER OF THE WEEK ENDING JULY 20

Reprinted from Weekly Weather and Crop Bulletin supplied by National Weather Service, NOAA.

HIGHLIGHTS: Heavy rain from Florida to Connecticut and into the previously dry northern New York area produced most notable precipitation pattern this week. Many areas in the northern Plains had little. Much of Iowa and Minnesota measured no rain at all. Temperatures were generally above the normal levels in the northern half of the Nation and below in the South. Unfortunately, the greatest positive departures were in the already dry States of Iowa, Minnesota, and South Dakota.

PRECIPITATION: The stationary front winding through the Atlantic and Gulf Coast States held its ground on Monday, dumping heavy rains that sparked flooding throughout the area. Parts of central New Jersey had 4-5 inches of rain in a 6-hour period. Showers and thundershowers spotted the neighboring Great Lakes region and also made their way into the central and southern Plains. By noontime, thunderstorms stretched southward along the gulf coast and into southern Texas. To the West, showers hit the Rockies and Intermountain region and the Pacific Northwest. Flooding that ranged from minor to severe occurred in several parts of the Nation on Tuesday. In New Jersey, the Millstone River set a record when it hit a level of 8 feet above the flood stage. Meanwhile, serious flooding from earlier rain persisted in eastern North Dakota. As the day progressed, the weather system showed signs of weakening. Otherwise, there was little change in the pattern of showers and thundershowers which dominated the eastern and northwestern sections of the country. Storms eased somewhat along the saturated Atlantic and gulf coasts and once again bypassed the Nation's parched midsection. Early Wednesday morning, showers and thunderstorms diminished along much of the Atlantic coast. Soon, however, slowly moving storms renewed their attack targeting more showers and thunderstorms along the coastal areas from southern Maine into southern Texas. Later, rains slackened once more and most flooding was minor. Elsewhere thunderstorms drifted into parts of the north and central Great Plains. Shower activity dotted the Rockies and Colorado area. Thursday's pattern of precipitation took on a slightly different shape. Rainfall spread from Texas into New Mexico and much of the coastal activity in the East moved over the water. Some showers still hovered over the East but began to make more noise throughout the South and West. Thunderstorms began to edge towards the dry Plains and by Friday progressed as far as the western Dakotas but many areas were bypassed. Warm moist air set the stage for a "comeback" of shower and storm activity across the East and South and into central portions of the Nation. Scattered precipitation on Friday extended from the central and southern Plains through the Mississippi Valley and into much of the Atlantic coast. In contrast to well-organized systems that drilled through Alabama and Tennessee and from Ohio through New York, storms west of the Mississippi River were widely scattered. Much of the increased activity that developed on Saturday focused on Nebraska which reported several heavy storms. Otherwise, a familiar pattern of scattered thundershowers made itself comfortable from the Plains to the Atlantic coast. Slow moving thunderstorms and an abundance of moisture gave rise to local flooding problems on Sunday in many parts of eastern

two-thirds of the Nation. Elsewhere, a large area of thundershowers drifted northeast through the Texas Panhandle. Early morning rains near Abilene dumped 5 inches in a 6-hour period. Precipitation broadened it's coverage of the Nation when showers developed across Kansas, Missouri, and eastern Colorado. At midday, thundershowers east of the Mississippi River encompassed areas from the gulf to the lower Ohio Valley. At the same time, storms north of the Ohio Valley into the Great Lakes were more scattered.

TEMPERATURE: Warm to hot weather that is so typical for this time of year prevailed over most of the Nation throughout the week. Although thunderstorms eased sultry conditions somewhat, relief was only temporary. Cooler nighttime temperatures brought the mercury down in many States. On Monday, overnight temperatures ranged from low 80's in the desert Southwest to the middle and upper 40's in portions of the middle Mississippi and lower Ohio Valleys. As the day progressed, however, temperatures shot up to the 90's and 80's across most of the Nation and into the 100's in the Southwest. A general warming trend made conditions even more uncomfortable in the upper Plains and Mississippi Valley. By early Tuesday afternoon, the mercury jumped to 100 degrees in central South Dakota. Wednesday was even more of a scorcher as desert temperatures of 100+ degrees reigned over South Dakota and Colorado and Nebraska as well. Pierre and Philip, South Dakota, shared a record high of 108 degrees. In contrast to the dry and dusty heat of the Plains, the Atlantic coast fared under mild but humid conditions. To the west, southwest Texas surprised everyone on Thursday with high readings in the 70's making it the coolest spot in the Nation. Afternoon temperatures on Friday ranged in the 80's and 90's in most sections of the country, and returned on Saturday to most areas except the Pacific coast where cool ocean breezes held the mercury in the 60's and 70's. Conditions in general seemed to cool on Sunday, as temperatures in the 60's and 70's became the rule rather than the exception.

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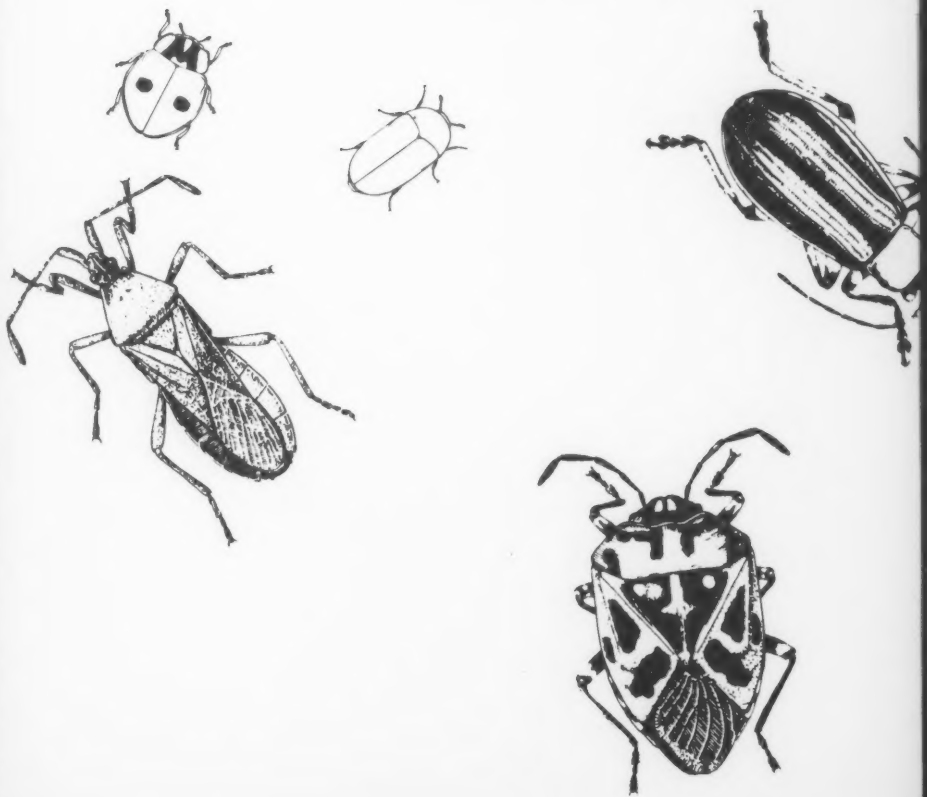
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